

BODY COMPOSITION FORM INSTRUCTIONS
BCF VERSION A: 08/15/2005
QxQ Prepared: 08/30/2005

I. General Instructions

The Body Composition Form (BDF) form is completed during the fixed sequence #1 of the participant's Exam 2 visit to record the results of measuring height, weight, waist and neck circumference and body composition (body fat, free fat mass, impedance). The technician must be certified and should have a working knowledge of the data entry procedures for electronic version forms and the document titled "General Instructions for Completing Paper Forms" prior to completing this form. ID Number, Contact Year, and Name should be completed as described in that document.

BCF is performed before the clinic snack and after offering the participant an opportunity to empty her/his bladder. See Table 4.1-4.3 in Manual 2: Cohort Procedures for instructions on how to convert to and from metric measures.

II. Specific Instructions

A. Preliminary Information

This section is intended to determine information that may impact measurements taken during Exam 2. It is important to have general information regarding the participant's hydration status as well as their activity level as a basis for interpreting anthropometric, body composition, and blood pressure measures.

1. Determine the time when the participant last had anything to drink (including water). While the person was to be fasting for the clinic visit, s/he could drink water. Ask the participant to try to recall as closely as possible the exact time of last fluid intake. Record time using a 24-hour clock.
2. Determine whether the participant had had any alcoholic beverage within the past 48 hours, recording "Don't Drink Alcohol," "Yes", or "No".
3. This item is intended to determine if the participant has engaged in physical activity within the past 12 hours. Moderate physical activity includes sustained physical activity (walking, household cleaning, gardening or yard work, etc) of 10 minutes. Vigorous physical activity includes sustained physical activity of 20 minutes or more that raises the heart rate and results in sweat from exertion (walking, running, biking,

heavy yard work, etc). Record “Yes” or “No”.

4. For WOMEN ONLY, determine menstrual cycle within the past two weeks. Only ask this item if the participant is 55 years of age or younger. If age 55 years or older, record “No longer menstruating”.

B. Girth Measurements

Girth measurements are to be taken against the skin or over light weight non-constricting underwear.

5. (Waist) Ask the participant to stand with the feet apart and the weight equally distributed while the waist is measured. Place the tape horizontally at the level of the umbilicus (navel) as depicted in Figure 4.4, Manual 2: Cohort Procedures. Record the results to the nearest centimeter, rounding down.
6. (Hip) The objective here is to measure the maximal circumference of the gluteal (hip) muscles. Ask the participant to stand with the feet apart and the weight equally distributed while the hip is measured. Refer to the anatomic figure (Figure 4.5) in Manual 2 for the proper placement of the measuring tape. Place the tape horizontally around the participant’s gluteal muscles (hips) at the level of maximal protrusion. The position is verified by passing the tape measure above and below the observed maximum. The measuring tape must be kept horizontal throughout this procedure. Record the results to the nearest centimeter, rounding down.

The next item is intended to record the participants’ inclusion in the comparability study to determine the equivalence of the balance beam scale and the Tanita Bioimpedance Monitor in measuring height and weight.

7. If the participant is NOT included in the comparability study and the height, weight and BMI are measured by the balance beam and wall mounted metal tape, record “Balance beam/Wall Only”. Complete Section C following, skipping Section D. The administrative section should correspond by indicating that measures were made “In clinic”.

If the participant is NOT included in the comparability study and the height, weight, and BMI are measured by the Tanita Bioimpedance Monitor only, record “Tanita body composition only”. Skip to Section D. The administrative section should correspond and, in most instances, indicate that measures were made “Off site.” If the measures were made in clinic with the Tanita, please indicate in the notes the reason this was done.

If the participant IS included in the comparability study, record “Both” and continue to complete BOTH Section C and Section D.

C. Balance Beam/Wall Measurements

8. Be sure that the participant's head is in the Frankfort horizontal plane as described in Figure 1, Manual 2: Cohort Procedures. Record the height to the nearest centimeter using leading zeroes if necessary.
9. Weight is taken with minimal clothing. Record results to the nearest kilogram.
10. Body Mass Index is automatically calculated by the computer

D. Tanita Measurements

11. Using the instructions provided in Manual 2, Section 4.1.2.2, Enter Body Type. Select from one of the four body types: Standard or Athletic. For most participants, you will select the "Standard" mode. The Athletic key should be used for individuals over the age of 17 and under the following conditions:
 - Tanita defines "athlete" as a person involved in intense physical activity of at least 10 hours per week and who has a resting heart rate of approximately 60 beats per minute or less. Tanita's athlete definition includes "lifetime of fitness" individuals who have been fit for years but currently exercise less than 10 hours per week. Tanita's athlete definition does not include "enthusiastic beginners" who are making a real commitment to exercising at least 10 hours per week but whose bodies have not yet changed to the required Athlete mode.
12. Be sure that the participant's head is in the Frankfort horizontal plane as described in Figure 1, Manual 2: Cohort Procedures. Record the height to the nearest foot and nearest inch using leading zeroes if necessary. Round up for 0.5 or above. Round down otherwise.
13. Weight is taken with minimal clothing. Record results to the nearest pound. [NOTE: There is no weight subtracted for clothing weight. Enter 0.0 on the Tanita Body Composition Monitor when prompted by LCD]
14. Body mass index is automatically calculated by the Tanita Bioimpedance Monitor. Record from print out.

The remaining items are recorded from the print-out that accompanies the participant measures. Assure that the print out is stapled to the Participant Itinerary Form for later placement in the participant's clinic record.

15. Percent body fat—record to the nearest tenth of a percent.
16. Basal metabolic rate—record two measures as indicated in the printout
 - 16a. Record in kilojoules (kj)
 - 16b. Record in kilocalories (kcal)
17. Impedance
18. Fat mass—record to the nearest tenth of a percent.
19. Free fat mass. Record to the nearest tenth of a pound.
20. Total body water—record to the nearest tenth of a pound.

E. Desirable Range

21. Enter the desirable percent body fat programmed into the Tanita equipment.

Acceptable levels of body fat for men range between 18-25% and for women between 25-31%. Explain to the participant that you are selecting the mid/upper level of the acceptable range by entering 24% for men and 30% for women. You may also inform them that the “fitness” levels for men are between 14-17% and 21-24% for women and that the “essential” fat that is necessary for men is 2-4% and for women is 10-12%.
22. Enter the desirable fat mass—record to the nearest tenth of a percent

F. Goal Setting

These next items are entered directly from the automated print out provided from the Tanita Bioimpedance Monitor.

Inform the participant that the Participant Education information at the end of clinic exit interview will address the readings from the Tanita Bioimpedance

Monitor.

- 23. Target percent body fat
- 24. Predicted fat mass
- 25. Fat to lose

G. Administrative Information

- 26. Enter the date on which the participant was seen in the clinic.
- 27. Record "Computer" if the form was completed on the computerized data entry system, or "Paper" if the paper form was used. If the form was completed partially on paper and partially on the computer, code as "Paper Form."
- 28. Record site of data collection as "In Clinic" or "Off Site".
- 29. Enter the 3 digit JHS code for the person at the clinic completing this form must enter her/his code number in the boxes provided.